**REMARKS**

With this response, claims 1, 2 and 9-13 are pending. Claims 1, 2 and 9-13 are amended without prejudice or disclaimer. Claims 3-8 remain cancelled. No new matter enters by way of the foregoing amendments.

**I. Withdrawal of the finality of the Office Action issued on October 30,2008**

Applicants acknowledge the withdrawal of the finality of the Office Action dated October 30, 2008.

**II. Double Patenting**

The Examiner stated that "[c]laims 1, 2 and 9-13 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-2 of copending Application No. 11/980366." Office Action at page 3.

Applicants respectfully submit that claims 1-2 were cancelled from U.S. Application No. 11/980,366 in the Preliminary Amendment filed together with the '366 application on October 31, 2007. As such, Applicants respectfully submit that this rejection should be withdrawn.

**III. 35 U.S.C § 101-Utility**

Claims 1, 2 and 9-13 were rejected under 35 U.S.C. § 101 because, according to the Examiner, the claimed invention allegedly is not supported by either a substantial, specific asserted utility or a well-established utility. Office Action at page 3. Applicants respectfully disagree.

Applicants have provided specific, substantial, credible, and well-established utilities for the claimed nucleic acid molecules and constructs throughout the specification. As acknowledged by the Examiner, "Table 1 discloses SEQ ID NO: 3366 encodes a cytochrome p450 protein...." *See* Office Action at page 3. In addition, SEQ ID NO: 3366 exhibits a strong correlation to a number of cytochrome p450-encoding family members, such as by way of non-limiting example Accession No. AY050980 and Accession No. AY091446. Furthermore, Applicants' specification discloses benefits conferred by the claimed nucleic acid molecules and constructs, such as for example, providing defense against herbivorous insects (*see e.g.*,

specification at page 18, lines 1-6), providing for biosynthesis of plant growth hormones, such as gibberellins, cytokines, auxins, ethylene and abscisic acid (*see e.g.*, specification at page 19, lines 18-23), and providing for tolerance to plant herbicides.

In rejecting the pending claims, the Examiner further argued that "[w]ith regard to its classification as a cytochrome P450 protein, this classification does not immediately impart utility because the name simply denotes a protein which has a light absorbance at a wavelength of 450 nm. There is no evidence that all proteins which absorb light at this wavelength would have the same or similar function." Office Action at page 4. Applicants respectfully disagree with the Examiner's arguments.

Cytochrome P450 proteins are well known to be useful, including by exerting numerous functions at a cellular level. Indeed, the Examiner acknowledges that "the state of the art indicates P450 proteins ... and are involve in processes including carbon assimilation, biosynthesis of hormones and structural components of living organisms, carcinogenesis and degradation of xenobiotics, chemical defense and drug metabolism." Office Action at page 5.

Despite the Examiner's acknowledgment that cytochrome P450 proteins have identifiable functions, the Examiner argued that "Applicant does not teach which (if any) of these properties is possessed by Applicant's SEQ ID NO: 3366 encoding SEQ ID NO 6915." *Id.* However, this argument does not accurately reflect the law. While the Examiner appears to require that Applicants identify but a single utility, this is not the correct legal standard. Although an invention need only provide one identifiable benefit to satisfy 35 U.S.C. § 101, the law does not require that Applicants may provide no more than one utility. *See Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 958 (Fed. Cir. 1983). As such, in the present case, where Applicants have provided at least one identifiable benefit, for example use as a cytochrome P450-containing molecule or construct, the legal test for utility has been met.

Based on the foregoing, Applicants respectfully submit that the rejection of claims 1, 2 and 9-13 under 35 U.S.C. § 101 is improper, and reconsideration and withdrawal of this rejection is respectfully requested.

## IV. 35 U.S.C. § 112, First Paragraph-Enablement

The Examiner argued that "[c]laims 1, 2 and 9-13 are also rejected under 35 U.S.C. 112, first paragraph... since the claimed invention is not supported by either a substantial, specific asserted utility or a well-established utility...." Office Action at page 9. Applicants respectfully disagree and point out that this rejection has been overcome by the foregoing arguments regarding utility. As such, Applicants respectfully request the withdrawal of this rejection.

The Examiner further argued that "with regard to claims 9-12, these claims are not further enabled because they encompass unspecified base substitutions, deletions, additions, and/or combinations thereof without recitation of function." Office Action at page 9. Applicants respectfully disagree.

Applicants respectfully submit that the Office has not met the evidentiary burden either to impose or to maintain an enablement rejection. A specification that discloses how to use a claimed invention, as in the present case, "must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein." *In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995), quoting *In re Marzocchi*, 439 F.2d 220, 223, 169 U.S.P.Q. 367, 369 (C.C.P.A. 1971) (emphasis in original).

As set forth in the foregoing arguments regarding utility, Applicants established that SEQ ID NO: 3336 has a high degree of homology to a protein sequence of a cytochrome P450. Applicants have provided ample guidance throughout the specification how to make and use the claimed nucleic acid molecules. *See e.g.*, specification at examples 1-2. Any modifications to the claimed nucleic acid molecules would be readily apparent to one of skill in the art. In fact, "(t)he specification need not disclose... and preferably omits that which is well-known to those skilled and already available to the public." *See e.g.*, *In re Buchner,* 929 F.2d 660, 661 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463 (Fed. Cir. 1984).

The Office has not presented any evidence to indicate that a skilled artisan could not use Applicants' nucleic acids in the manner provided by the specification. By contrast, Applicants have presented both a presumptively enabling specification and also specific evidence that the

presently pending claims indeed were enabled at the time of filing. For example, Applicants have provided evidence that SEQ ID NO: 3336 has significant homology to a nucleic acid molecule encoding a cytochrome P450 enzyme, which may be used, for example, to prepare antibodies, transform plants, and modify the expression of a cell protein. Applicants are required to do no more.

Based on the foregoing arguments, Applicants respectfully submit that instant claims are enabled under 35 U.S.C. § 112, first paragraph. As such, Applicants request the reconsideration and withdrawal of enablement rejection of claims 1, 2 and 9-13.

## V. 35 U.S.C. § 102(b)

Claims 1, 2 and 9-13 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Application No. 6,380,465 (the '465 Patent). The Examiner argued that "recitation of 'a nucleic acid sequence of SEQ ID NO: 3336' and 'a polypeptide' read on any portion of SEQ ID NO: 3336 or a sequence encoding SEQ ID NO: 6915, such as a 2-base or 6-base sequence." Office Action at page 12. In order to facilitate prosecution, Applicants have amended claims 1, 2 and 9-13 in accordance with the Examiner's suggestions. As such, the Examiner's rejections are believed to be moot.

Based on the foregoing, Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 102(b).

## VI. 35 U.S.C. § 102(e)

The Examiner argued that "[c]laims 1, 2 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi et al. (US20060123505, filed May 29, 2003)." Office Action at page 12. The Examiner argued that "[t]he recitation of 'a nucleic acid sequence of SEQ ID NO: 3366' and 'a polypeptide' read on any portion of SEQ ID NO: 3366 or a sequence encoding SEQ ID NO: 6915, such as 2-base or 6-base sequence." *Id.* In order to facilitate prosecution, Applicants have amended claims 1, 2 and 9-13 in accordance with the Examiner's suggestions.

Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e).

**CONCLUSION**

In view of the above amendments and remarks, each of the presently pending claims is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims, and to pass this application to issue. The Examiner is encouraged to contact the undersigned at (202) 942-5325 should any additional information be necessary for allowance.

Respectfully submitted,

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